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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,294	02/12/2004	Hiromichi Enomoto	KOT-0089	5277

7590 05/31/2007  
CANTOR COLBURN LLP  
55 Griffin Road South  
Bloomfield, CT 06002.

EXAMINER
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CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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05/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,294	<b>Applicant(s)</b> ENOMOTO, HIROMICHI	
	<b>Examiner</b> Sheela C. Chawan	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16 is/are allowed.
- 6) ☒ Claim(s) 1,2,17 and 19 is/are rejected.
- 7) ☒ Claim(s) 3-12 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/7/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

**Information Disclosure Statement**

2. The information disclosure statement (IDS) submitted on 6/7/04, The examiner is considering the information disclosure statement.

**Drawings**

3. The Examiner has approved drawings filed on 2/12/04.

**Claim Rejections - 35 USC § 101**

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 19 and 20 are rejected under 35U.S.C. 101 because the claimed invention 19 and 20 are directed to non-statutory subject matter. The terminology "A computer program " alone has no set definition. The following claim formats are acceptable and not subject to a 101 rejection "A computer readable medium encoded with a computer program" for performing the steps of ...". See – MPEP 2106.

**Claim Rejections - 35 USC § 102**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagai et al., (US. 7,155,037 B2).

As to claim 1, Nagai discloses a method for processing an image to be displayed as a single screen image, comprising the steps of:

determining whether or not a personal image is included in said image, based on image signals representing said image (column 5, lines 2-16);

recognizing an oriented direction of said image (fig 1, column 1, lines 60-61), based on at least one of element-feature quantities with respect to constituent elements constituting said personal image, when determining that said personal image is included in said image in said determining step (column 2, lines 4- 7, 40-47, column 5, lines 17- 22).

As to claim 2, discloses the method of claim 1, wherein said constituent elements include a shape of face, a positional relationship between both eyes, a positional relationship between said face and hair on a head, and a positional relationship between said face and a hand or a leg (column 2, lines 40- 47).

As to claim 17, see the rejection of claim 1 above.

As to claim 19, see the rejection of claim 1 above.

***Allowable Subject Matter***

6. The following is an examiner's statement of reasons for allowance:

Claims 13-16 are allowed.

The present invention is directed towards a method for processing an image to be displayed as a single screen image, said image being one of a plurality of images, which have partial images relating to each other among said plurality of images, comprising the steps of:

determining whether or not a personal image is included in said partial images; based on image signals representing said partial images;

acquiring element-feature quantities with respect to constituent elements constituting said personal image, when determining that said personal image is included in said partial images in said determining step;

acquiring background-feature quantities by comparing feature quantities extracted from image areas included in said partial images with other feature quantities extracted from another image areas included in said partial images; and

recognizing an oriented direction of said image, based on at least one of said element-feature quantities and/or at least one of said background-feature quantities, as specified in the independent claims.

***Allowable Subject Matter***

7. Claims 3-12, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, the prior art, taken either singly or in combination, does not teach wherein, when determining that said personal image is included in said image in said determining step, said oriented direction of said image is recognized, based on a background-feature quantity obtained by comparing a feature quantity, extracted from an image area included in said image, with another feature quantity, extracted from another image area included in said image in addition to at least one of said element-feature quantities.

Regarding claim 4, the method wherein, when recognizing said oriented direction of said image based on both said element-feature quantities and said background-feature quantity, a weighting for said element-feature quantities is heavier than that for said background-feature quantity.

Regarding claim 5, the method wherein said image area and said other image areas are located at peripheral regions of said image.

Regarding claim 6, the method wherein, when not in said determining step, said oriented direction of said image is recognized, based on a background-feature quantity obtained by comparing a feature quantity, extracted from an image area included in said image, with another feature quantity, extracted from another image area included in said image.

Regarding claim 7, the method wherein said background-feature quantity relates to one of an image symmetry using color information, an image symmetry using edge information, an inclination of brightness, and uniformity of a region close to each side of said image.

Regarding claim 8, the method wherein, when determining that said personal image is included in said image in said determining step, said oriented direction of said image is recognized, based on said background-feature quantity in addition to at least one of said element-feature quantities.

Regarding claim 9, the method wherein, when recognizing said oriented direction of said image based on both said element-feature quantities and said background-feature quantity, a weighting for said element-feature quantities is heavier than that for said background-feature quantity.

Regarding claim 10, the method wherein said image area and said other image areas are located at peripheral regions of said image.

Regarding claim 11, the method when said oriented direction of said image, recognized in said recognizing step, is other than an inclination of zero degree, further comprising the steps of: converting said image signals representing said image to

rotated image signals representing a rotated image, whose oriented direction coincides with said inclination of zero degree; reducing a size of said rotated image signals so as to generate reduced-rotated image signals representing a reduced-rotated image; storing both said rotated image signals and said reduced-rotated image signals into a storage medium.

As to claim 12, the method when said oriented direction of said image, recognized in said recognizing step, is other than an inclination of zero degree, further comprising the steps of: converting said image signals representing said image to rotated image signals representing a rotated image, whose oriented direction coincides with said inclination of zero degree; reducing a size of said rotated image signals so as to generate reduced-rotated image signals representing a reduced-rotated image; storing both said rotated image signals and said reduced-rotated image signals into a storage medium.

As to claim 18, the apparatus wherein, when said determining section determines that said personal image is not included in said image, said recognizing section recognizes said oriented direction of said image, based on a background-feature quantity obtained by comparing a feature quantity, extracted from an image area included in said image, with another feature quantity, extracted from another image area included in said image.



***Other prior art cited***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kage et al., (US. 7,158,177 B2) discloses apparatus for and method of synthesizing face image.

Chen et al., (US. 7,120,279 B2) discloses method for face orientation determination in digital color images.

Lobo et al., (US. 5,835,616) discloses face detection using templates.

Toyama et al., (US. 6, 741,756 B1) discloses system and method for estimating the orientation of an object.

Kondo et al., (US. 6,965,693 B1) discloses image processor, image processing method, and recorded medium.


**Contact Information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan  
Patent Examiner  
Group Art Unit 2624  
May 29, 2007

  
SHEELA CHAWAN  
PRIMARY EXAMINER